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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,043	10/12/2001	Aswin Chandramouleeswaran	10017249-1	3751

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HEWLETT-PACKARD COMPANY  
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EXAMINER

TRUJILLO, JAMES K

ART UNIT PAPER NUMBER

2116

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/977,043

Applicant(s)

CHANDRAMOULEESWARAN ET AL.

Examiner

James K. Trujillo

Art Unit

2116

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,9,15 and 16 is/are allowed.
- 6) ☒ Claim(s) 1,4-8,10-14 and 17-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/12/2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment dated 1/11/06.
2. Claims 1-23 are presented for examination.

### *Drawings*

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “*evaluate the one or more alternate orders*” [emphasis added] must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Specifically, only one alternate order is believed disclosed and more than one alternate orders is not shown in the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

Art Unit: 2116

be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

4. Claims 21-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. New claims 21-23 recite “automatically evaluate one or more alternative orders”. However, it does not appear that the “...or more alternative orders” is described in the specification (that is only one alternative order is disclosed). If this subject matter has been overlooked by the examiner and is in fact described in specification, the examiner kindly requests the applicant to specifically point out where in the specification these limitation exist.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 4-8, 10-14 and 17-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of “Dynamically Tunable Kernel Parameters in HP-UX 11i” an HP-UX 11i white paper from Hewlett-Packard (cited in IDS dated 5/6/2005, hereinafter, “the White Paper”).

Art Unit: 2116

7. Regarding claim 1, AAPA teaches a method for operating a computing apparatus comprising:

- a. receiving proposed changes to a plurality of tunable parameters of tunable kernel modules (administrators wishing to change related values of tunable parameters, paragraphs 1 and 2 of the Background of the Invention; proposed changes are inherently received from the administrator);
- b. determining whether application of the changes would violate a set of constraints (carefully changing the values in order to avoid violating constraints, paragraphs 1 and 2 of the Background of the Invention); and
- c. effectuating either none or all of the changes depending upon whether the changes were determined to violate any or none of the constraints, respectively (carefully changing the values in order to avoid violating the constraints, paragraphs 1 and 2 of the Background of the Invention).

AAPA does not explicitly disclose “*automatically* determining...” as claimed [emphasis added].

The White Paper teaches a tunable parameter that is automatically tunes itself (to of page 4). This provides the obvious advantage of not requiring an administrator.

It would have been obvious to one of ordinary skill in the art, having the teachings of both AAPA and the White Paper before them at the time the invention was made, to modify AAPA such that the steps are automatically performed.

One of ordinary skill in the art would have been motivated to make these modifications in order to provide the changes automatically.

Art Unit: 2116

8. Regarding claim 4, AAPA together with the White Paper taught the method according to claim 1, as described above. AAPA further teaches wherein effectuating all of the changes comprises changing the values of the plurality of tunable parameters in a predefined order (careful to change the “values” in proper order, paragraph [0003]).

9. Regarding claim 5, AAPA together with the White Paper taught the method according to claim 1 as described above. The White Paper further teaches wherein effectuating all of the changes comprises either rebooting the operating system kernel before effecting said changes or effecting said changed prior to rebooting the operating system kernel, conditioned upon whether at least one of the tunable parameters is a static tunable parameter (page 4, lines 1-15 and page 4 lines 22-25). Specifically, the White Paper teaches that there are two types of kernels, static and dynamic. The static kernel parameters require a reboot when changed and a dynamic kernel parameter does not require a reboot when changed. The White Paper that is necessary to reboot when changing a static kernel parameter. Thus, the White Paper teaches that in order to properly change a tunable kernel parameter it is necessary to reboot the operating system kernel a static tunable kernel parameter while a dynamic kernel parameter does not require a reboot.

It would have been obvious to one of ordinary skill in the art, having the teachings of AAPA and the White Paper before them at the time the of invention, to modify the rebooting of the operating system of AAPA by implement rebooting the operating system before effecting the changes or effecting said change prior to rebooting the operating system as taught by the White Paper.

One of ordinary skill in the art would have been modified to make this modification because it is necessary in order to properly change a tunable kernel parameter and have an effect on the system.

10. Regarding claim 6, AAPA together with the White Paper taught the method according to claim 1, as described above. The White Paper further teaches comprising specifying a time at which said proposed changes are to be effectuated, and effectuating said proposed changes (page 4, lines 1-8, page 5, line 13 through page 6, line 22). The White Paper teaches when the changes take effect such as at a reboot for static tunable parameters, or immediately if it is dynamic tunable parameters.

11. Regarding claim 7, AAPA together with the White Paper taught the method according to claim 1, as described above. AAPA further teaches comprising specifying an order in which said proposed new values are to take effect, and effectuating the changes in the specified order (the administrator must be careful to follow the proper order, paragraphs 2 and 3 of the Background of the Invention).

12. Regarding claims 8, and 10-13, AAPA together with the White Paper teaches the claimed method therefore he also the claimed computing apparatus.

13. Regarding claim 14, AAPA teaches instructing a computing apparatus having a central processing unit and a memory to:

- a. receiving proposed changes to a plurality of tunable parameters of tunable kernel modules (administrators wishing to change related values of tunable parameters, paragraphs 1 and 2 of the Background of the Invention, proposed changes are inherently received from the administrator);

Art Unit: 2116

- b. automatically determine whether application of the changes would violate a set of constraints (carefully changing the values in order to avoid violating constraints, paragraphs 1 and 2 of the Background of the Invention); and
- c. effectuate either none or all of the changes depending upon whether the changes were determined to violate any or none of the constraints, respectively (carefully changing the values in order to avoid violating the constraints, paragraphs 1 and 2 of the Background of the Invention).

However AAPA does not expressly disclose wherein the instructing is on a medium or media having machine-readable instructions recorded thereon to perform the instructing.

AAPA does not explicitly disclose “*automatically* determining...” as claimed [emphasis added].

The White Paper teaches a tunable parameter that is automatically tunes itself (to of page 4). This provides the obvious advantage of not requiring an administrator.

It would have been obvious to one of ordinary skill in the art, having the teachings of both AAPA and the White Paper before them at the time the invention was made, to modify AAPA such that the steps are automatically performed.

One of ordinary skill in the art would have been motivated to make these modifications in order to provide the changes automatically.

The White Paper further teaches wherein a medium or media having machine readable instruction recorded thereon perform instructing a computing apparatus to specify changes to a plurality of tunable kernels (writing software, which inherently requires a machine readable media, which changes tunable parameters, abstract and page 5, lines 13-17). The White Paper is



Art Unit: 2116

in the same field of endeavor as that of AAPA in that both are directed toward changing tunable kernel parameters. By implementing software to change a plurality of tunable kernels the White Paper provides the advantage automatically implementing the changes making it easier for a user to operate the system.

It would have been obvious to one of ordinary skill in the art, having the teaching of AAPA and the White Paper before them at the time the invention was made, to modify the changing the tunable kernel modules as taught by AAPA using the media having machine-readable instruction thereon to perform the instruction as taught the White Paper.

One of ordinary skill in the art would have been motivated to make the modification in order to provide the advantage of automatically implement the changes making it easier for a user to operate the system.

14. Regarding claims 17-20, AAPA together with the White Paper taught the claimed method therefore they also taught the claimed apparatus and media having machine-readable instructions.

15. Regarding claims 21-23, AAPA together with the White Paper taught claimed method, apparatus and medium according to claims 1, 8 and 14 respectively. AAPA further teaches wherein the determining step includes evaluating one orders by which the proposed changes can be effectuated to identify whether a valid order exists that would not violate the set of constraints; and the effectuating step uses the valid order if such is identified by the evaluating step (administrators must be careful to change the (tuneable parameters) in the proper order to avoid violating the constraints paragraph [0003]). The White Paper teaches that changes would automatically done using automatic tunables (top of page 4). It would have been obvious to one

Art Unit: 2116

of ordinary skill in the art, having the teachings of AAPA and the White Paper before them at the time of the invention to automatically evaluate the order by which the proposed changes are effectuated in order to prevent violating constraints.

### ***Response to Arguments***

16. Applicant argues in substance that their machine-implemented method is patentable over AAPA in the analogous way that the claims in Decca case were held. The examiner does not agree. The claims in the instant application merely include the recitation of “automatically” to steps that have been shown to exist in the prior art and thus, like *in Re Venner*, broadly provides an automatic means to a manual activity. In the Decca case, claimed subject matter, such as the phase discriminator and phase regulator, is clearly more than just broadly providing an automatic means to a manual activity. In the Decca case, the phase discriminator and phase regulator is clearly distinguished from automating the manual activity of manual controls. Thus, the instant application is more Venner.

17. In any case, applicant's arguments with respect to claim 1, 4-8, 10-14, 17-20 and 21-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Allowable Subject Matter***

18. As previously shown, claims 2-3, 9 and 15-16 are allowed.

### ***Conclusion.***

Art Unit: 2116

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

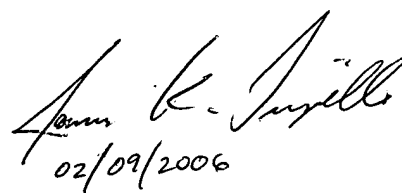
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James K. Trujillo whose telephone number is (571) 272-3677. The examiner can normally be reached on M-F (7:00 am - 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2116

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



02/09/2006

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